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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,497	07/19/2001	John W. Evans	290397.0007	9692
21832	7590	08/02/2006		
MCCARTER & ENGLISH LLP CITYPLACE I 185 ASYLUM STREET HARTFORD, CT 06103			EXAMINER KHAN, AMINA S	
			ART UNIT 1751	PAPER NUMBER

DATE MAILED: 08/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/910,497	Applicant(s) EVANS ET AL.	
	Examiner Amina Khan	Art Unit 1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-13 and 27-50 is/are pending in the application.
- 4a) Of the above claim(s) 30-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-13,27-29 and 40-50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. The **FINALITY** of the office action dated May 31, 2006 is withdrawn in view of new grounds of rejection indicated below.
2. This office action is in response to applicant's arguments filed on July 26, 2006.
3. Claims 1-4,6-13 and 27-50 are pending. Claims 30-39 have been withdrawn from consideration. Claims 5 and 14-26 have been cancelled.
4. The 35 USC 112 first paragraph rejection of claims 1-3,6-13,27,40-42 and 44-50 for the reasons set forth in the previous office action is withdrawn.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
6. Claims 1-4 and 6-13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 recites the limitation "an operating range with a lower temperature limit that is below minus 10°C at atmospheric pressure and an upper temperature limit that is above 150°C at atmospheric temperature" which is considered new matter. These exact operating ranges are not defined in the specification. Claims 2-4 and 6-13 are also rejected for being dependent on claim 1 and inheriting the same deficiency.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-4, 6-12, 27-29, 40-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans (WO 96/37570).

Evans teaches non-aqueous heat transfer fluids comprising propylene glycol (at least 40%), ethylene glycol (page 16, lines 4-11) and corrosion inhibitors that do not require water for the additives to enter into or remain in solution (page 17, lines 1-3) as claimed in claims 1,3 and 4. Evans further teaches that the additives each be present in a concentration range from 0.3% to 0.5% by weight (page 18, lines 2-4) and include sodium molybdate, tolyltriazole, and sodium nitrate (page 17, lines 9,12 and 16) as claimed in claims 2 and 6-12. Evans further teaches a coolant formulation comprising propylene glycol as the sole heat transfer base at >99% by weight (page 21, line 30) but also teaches that ethylene glycol may used in combination with propylene glycol

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provided at least 40% propylene glycol is present (page 16, lines 4-11) allowing for the inclusion of up to about 60% ethylene glycol. Evans further teaches adding at least 40% propylene glycol to ethylene glycol to reduce toxicity (page 16, lines 4-11; page 5, line 15 to page 6, line 13) as claimed in claims 27-29 and 40-50. Evans further teaches that neat PG freezes at  $-60^{\circ}\text{C}$  and boils at  $187.2^{\circ}\text{C}$  and neat EG freezes at  $-13.5^{\circ}\text{C}$  and boils at  $197.3^{\circ}\text{C}$  (page 16, lines 1-25).

Evans is silent as to operating range of the heat transfer fluid and does not teach heat transfer fluids with greater than 60% to about 70% ethylene glycol.

It would have been obvious to one of ordinary skill in the art at the time the invention was made that the operating temperatures of the fluids taught by Evans would meet the range instantly claimed because the primary glycol components of the fluid have boiling and freezing temperatures meeting this range. The patent office is not equipped to measure the operating temperatures of the fluids of Evans, however one of ordinary skill in the art would expect the range to be met absent. The burden is on the applicant to prove otherwise.

It would have further been obvious to one of ordinary skill in the art that the fluids taught by Evans would have the same properties as the fluids instantly claimed because Evan teaches fluids comprising at least 40% propylene glycol leaving room for almost 60% ethylene glycol, a range very close to that instantly claimed. A *prima facie* case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same

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properties, see *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). See MPEP 2144.05I.

### **Conclusion**

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amina Khan whose telephone number is (571) 272-5573. The examiner can normally be reached on Monday through Friday, 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on (571) 272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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*Amina K*

Amina Khan

Patent Examiner

July 28, 2006

*Lorna M. Douyon*

LORNA M. DOUYON

PRIMARY EXAMINER